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STATUS OF CRUISE MISSILES IN A COASTAL DEFENSE ROLE, CHINA

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STATUS OF CRUISE MISSILES IN A COASTAL DEFENSE ROLE, CHINA

ABSTRACT

1. The Chinese have deployed two cruise missile systems in a coastal defense role. One is the Russian-built SAMLET (CSSC-1) cruise missile system which is usually used in the coastal defense role. The other system is probably the STYX or a similar-type cruise missile system. The Russian-designed STYX has usually been deployed as a shipborne antiship missile system (CSS-N-1), but indications are that the Chinese are using the STYX system or a similar STYX-type system as a land-based coastal defense weapon.

2. This report will differentiate the two systems as well as discuss deployment and trends. The report includes four photographs, a line drawing, a location map, and tabular material.

INTRODUCTION

3. In early 1960, the Soviets furnished the Chinese with a limited amount of SAMLET cruise missile equipment that formed the nucleus of a coastal defense missile system. There has been no photographic evidence that the Chinese have produced any additional equipment for the SAMLET system; therefore, its deployment has been limited.

4. During this same time period, early 1960, the Soviets also furnished the Chinese with the STYX shipboard cruise missile system. The first indication that this missile system might be used in a land-based role was observed in 1963, when possible STYX missile shipping crates were identified at the Chin-hsi SSM Research and Development Test Complex [redacted] 25X1

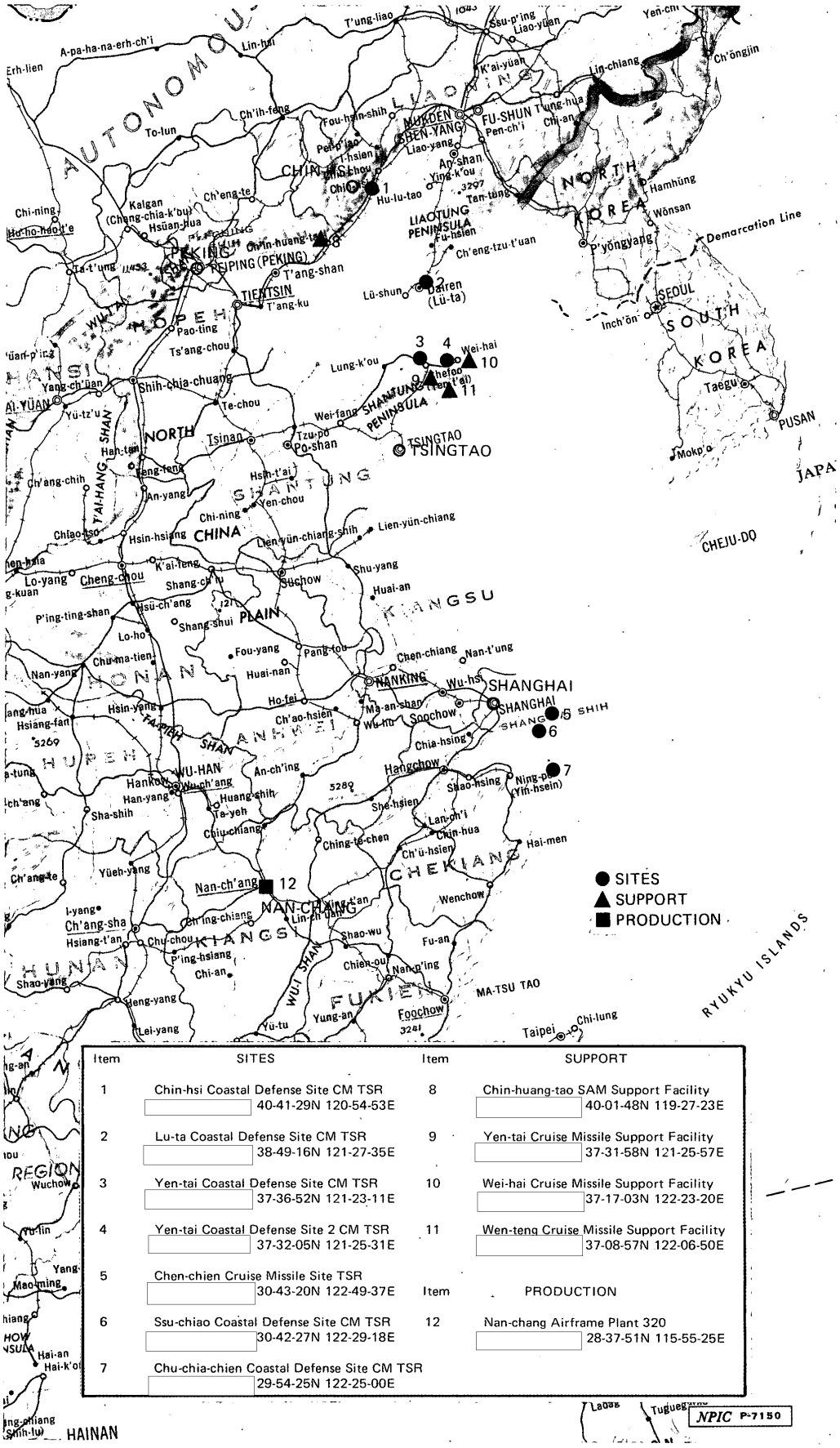
5. The first identification of a longer or stretched STYX-type shipping crate at the Chin-hsi complex in 1967 indicates continued research in the STYX or a very similar-type missile system as a land-based coastal defense weapon. This stretched shipping crate was also observed at the Nan-chang Airframe Plant 320 in the same year. The Nan-chang plant has been identified as the production facility for the STYX missile.

6. Both the standard and the stretched STYX-type shipping crate have been seen on KEYHOLE photography in increasing numbers since 1967. However, the STYX missile has only been identified three times on overhead photography and all three sightings were at the Chin-hsi complex. Twice, June 1968 and July 1973, the imaged missile appeared to be the standard 21-foot-long STYX missile. The third sighting was June 1969, but due to poor interpretability the missile could not be identified as a standard STYX or as a modified, stretched STYX missile.

7. Seven cruise missile coastal defense sites have been identified in China. Three cruise missile support facilities associated with land-based cruise missile activity, one support facility identified with both surface-to-air and cruise missiles, and the Nan-chang plant where the STYX missile is produced are shown in Figure 1.

BASIC DESCRIPTION

8. Of the seven cruise missile coastal defense sites in China, two have been associated with the SAMLET system. They are the Lu-ta Coastal Defense Site Cruise Missile, Tactical Short Range (item 2, Figure 1), and Yen-tai Coastal Defense Site Cruise Missile, Tactical Short Range (item 3). Three sites are associated with the STYX or similar-type missile system: Chu-chia-chien Coastal Defense Site Cruise Missile, Tactical Short Range (item 7), Ssu-chiao Coastal Defense Site Cruise Missile, Tactical Short Range (item 6), and Chen-chien Cruise Missile Site, Tactical Short Range (item 5). One of the other sites, the Chin-hsi Coastal Defense Site Cruise Missile, Tactical Short Range (item 1), may be used in the research and development role. The remaining site, the Yen-tai Coastal Defense Site 2 Cruise Missile, Tactical Short Range (item 4), is probably used in a training role as well as an operational site and has probably been associated with both missile systems.



Item	SITES	Item	SUPPORT
1	Chin-hsi Coastal Defense Site CM TSR [redacted] 40-41-29N 120-54-53E	8	Chin-huang-tao SAM Support Facility [redacted] 40-01-48N 119-27-23E
2	Lu-ta Coastal Defense Site CM TSR [redacted] 38-49-16N 121-27-35E	9	Yen-tai Cruise Missile Support Facility [redacted] 37-31-58N 121-25-57E
3	Yen-tai Coastal Defense Site CM TSR [redacted] 37-36-52N 121-23-11E	10	Wei-hai Cruise Missile Support Facility [redacted] 37-17-03N 122-23-20E
4	Yen-tai Coastal Defense Site 2 CM TSR [redacted] 37-32-05N 121-25-31E	11	Wen-teng Cruise Missile Support Facility [redacted] 37-08-57N 122-06-50E
5	Chen-chien Cruise Missile Site TSR [redacted] 30-43-20N 122-49-37E	Item	PRODUCTION
6	Ssu-chiao Coastal Defense Site CM TSR [redacted] 30-42-27N 122-29-18E	12	Nan-chang Airframe Plant 320 [redacted] 28-37-51N 115-55-25E
7	Chu-chia-chien Coastal Defense Site CM TSR [redacted] 29-54-25N 122-25-00E		

FIGURE 1. LOCATIONS OF CRUISE MISSILE COASTAL DEFENSE SITES AND SUPPORT AND PRODUCTION FACILITIES

9. Some of the differences in site configuration between the SAMLET and the STYX-type systems are shown in Figures 2 and 3. The Lu-ta site, associated with the SAMLET system, is shown in Figure 2, and the Chu-chia-chien site, associated with the STYX-type system, is shown in Figure 3. A comparison of the two missile systems is shown in Table 1. Information in the table is based on known permanent sites in China. Because of the limited deployment of the STYX-type system, variations from the typical site configuration may be expected as deployment increases.

10. Canvas-covered launchers, outwardly similar to the SAMLET launcher but somewhat shorter, were first observed at the Chin-hsi SSM Research and Development Test Complex in September 1969 and at the Yen-tai Cruise Missile Support Facility in October 1969. A missile transporter, similar to but shorter than the SAMLET transporter, was also observed at these same two facilities.

11. The three radars associated with the SAMLET system are the tower-mounted (illuminator) radar, a SHEET BEND (early warning and surveillance) radar, and a SQUARE HEAD IFF (interrogator) radar. No radar has been identified with the land-based STYX-type system. Figure 4, with item numbers keyed to Table 2, shows major equipment for the SAMLET system observed at Yen-tai Cruise Missile support Facility Figure 5, also keyed to Table 2, shows major equipment for the STYX-type system observed at Yen-tai Cruise Missile Support Facility

12. The differences between SAMLET and the two types of STYX shipping crates are quite distinctive. The only difference between the two STYX-type crates is in the length. Drawings of the SAMLET shipping crate, the standard STYX shipping crate, and the stretched STYX-type shipping crate are shown in Figure 6.

13. From 1960 until 1972, all land-based cruise missile activity observed was in the Po Hai Gulf area. In 1972 the first identification of cruise missile coastal defense sites outside of the Po Hai Gulf area was made in the Shanghai area. These Shanghai area sites have been identified with the land-based STYX-type cruise missile, indicating that this missile system is now operational. Continued deployment at strategic locations along the coast as well as on offshore islands is likely.

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Table 1. Comparison of Typical Permanent STYX-type and SAMLET Missile Sites

	SAMLET system	STYX-type system
Launch positions	2	4
Launcher control bunkers	2	0
System of load/reload	Transporter served; long, straight approach for transporter-to-launcher transfer	Poss rail-mounted dolly; prob direct tunnel-to-launcher transfer
Electronics area	Can accommodate 3 radars, truck & trailer mounted	Can poss accommodate 2 van trucks

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